



Ascent LLC

Company Overview

The Problem:

- Corrosion is the major cause of aircraft downtime and impact to readiness causing billions of dollars in unscheduled maintenance annually on United States and Australian aircraft platforms.
- Over the past decade, 20% of the Defense maintenance budget was consumed by corrosion related maintenance.
- Corrosion is responsible for 27% of United States Naval Aviation reduced platform availability and is the number one impact to readiness.

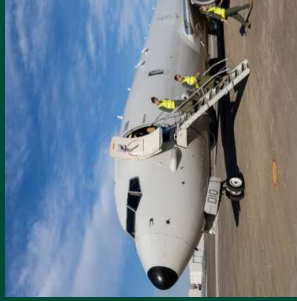
The Solution:

- Increase Readiness and mission-capable rates for critical assets such as P-8 Poseidon, EA-18G Growler, and F/A-18E/F Super Hornet.
- CorroVision is a platform agnostic, artificial intelligence and machine learning (AI/ML) based corrosion prediction tool developed to reduce aircraft downtime (Non-Available Hours (NAH), improve readiness, and reduce the impact on squadrons.
- Transition from Reactive to Proactive Maintenance via Predictive Corrosion Management.
- Forecast and therefore schedule, unscheduled corrosion related maintenance.
- Optimise the spend on available facilities, infrastructure, resources and personnel.
- Utilise existing platform maintenance and condition data to optimise availability.
- Outputs from corrosion specific sensors are not required but this data, if available, can be utilised as exogenous inputs.

Product

CorroVision — Optimising the spend using Artificial Intelligence and Machine Learning (AI/ML)

- Ascent have partnered with PrioriAnalytica to develop CorroVision.
- CorroVision provides quantified probabilistic predictions of maintenance requirements informed by operational conditions and requirements.
- Using AI/ML, CorroVision models 'corrosion severity' at the Component, Aircraft and Fleet level in response to previous deployments, environmental conditions, maintenance performed, and condition data.
- The system provides quantified, probabilistic predictions assessing future operational conditions and requirements along with the corresponding impact to maintenance.
- The end user can then prioritise maintenance scheduling and content to ensure forecasted maintenance arising are captured during scheduled events, ensuring readiness and platform availability whilst reducing NAH and cost.



Discriminators

- We are 100% veteran-owned and operated
- Partnered with Hui Hullau, an SBA approved Super 8(a) Native Hawaiian Organization
- Proven commercial methodologies applied to the military environment
 - Ascent are the Subject Matter Experts (SME) on implementing effective corrosion management strategies
 - PrioriAnalytica have demonstrated success in Applied Operational Analytics
 - exPlanable Artificial Intelligence: Auditable Whitebox systems to allow interrogation against standards resulting in 'Creditable Data' providing knowledge of the reasoned facts

Availability and Support

- Ascent — Headquartered in Australia with offices in all Australian States and authorised access to Military facilities to support Australian customer base
- Representation underway in the United States, to facilitate our global customer base
- Defence Force readiness for Land, Maritime and Air domains
- Jointly, Ascent and PrioriAnalytica represent considerable expertise in proactive prediction of corrosion arising to increase readiness and capability of defence platforms

Key Customers

- Australian Department of Defence
- Royal Australian Navy
- Australian Space Agency
- L3Harris
- Capability Acquisition and Sustainment Group (CASG) (Australia)
- Guided Weapons and Explosive Ordnance (GWEO) Enterprise
- Boeing Defence Australia

Key Partnerships

- Hui Hullau Defense Systems, an SBA approved Super 8(a) NHO
- University of Adelaide (Australia)
- Lot Fourteen
- Defence Teaming Centre (Australia)
- Veterans Employment
- Soldier On
- Praxis Aerospace
- The University of Adelaide (Australia)
- The American Chamber of Commerce in Australia (AmCham)
- PrioriAnalytica

Quality Accreditations and Awards

- Defence Innovation, Science and Technology (DIST) Panel level across Aeronautical Engineering, Blast Physics, Energetic Materials, Undersea Warfare and Sonar Technologies
- Defence Industry Security Program (DISP) accredited
- Defence Service Support (DSS) Panel Level 4: Certified: Aerospace Systems & Engineering, Mechanical Engineering, Systems Engineering, Test and Evaluation, and others up to Level 3
- Defence Reserves and Employer Support — Employer Support Award

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